2017 TBPG Workshop COMT Roundup

Abstract

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The Coastal and Ocean Modeling Testbed (COMT) uses targeted research and development to accelerate the transition of scientific and technical advances from the coastal and ocean modeling research community to improve identified operational ocean products and services (i.e. via research to operations and also operations to research). The vision of the program is to enhance the accuracy, reliability, and scope of the federal suite of operational coastal and ocean modeling products, while ensuring its diverse user community is better equipped to solve challenging coastal problems.Since its initiation in June, 2010, non-federal partner, the Southeast University Research Association (SURA) has led the development of the COMT to include a flexible and extensible community research framework to test and evaluate predictive models to address key coastal environmental issues. This framework supports integration, comparison, scientific analyses and archiving of data and model output. The COMT has developed a cyber infrastructure to allow more effective collaborations among Federal research labs, the academic community and Federal operational centers to accelerate improvements of predictive models. This presentation will focus on this year's theme, "New Observing System Capabilities and the Fusion of Observations with Environmental Forecast Models," in COMT. There are 5 projects underway and they have made significant progress in developing and defining transition pathways. We will show relevant accomplishments for the projects as well as accomplishments for the COMT infrastructure in its process for integration with NOAA. The West Coast development project is testing a data assimilating west coast operational forecast system (WCOFS). This would be the first OFS to use data assimilation using observational data to improve the model forecasts. Additionally the Gulf of Mexico Hypoxia project team conducted additional simulations of the 2016 hypoxic season to mitigate unplanned loss of observation cruise data. These results were compared against available observations to provide analysis otherwise unavailable and identify opportunities to refine both ROMS and FVCOM model setups. Each project is using observations to improve environmental forecast products and these will be highlighted. Finally, we will provide an outlook for 2017.